

SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name Copper (Cupric) Sulfate Pentahydrate Saturated Solution
CAS number 7758-98-8
Synonyms Copper Sulfate, Saturated

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses Laboratory Chemicals

1.3 Details of the supplier of the safety data sheet

Company Lab Alley, LLC
 12501 Pauls Valley Road
 Austin, Texas 78737
 U.S.A.
Telephone 512-668-9918
Fax 512-886-4008

1.4 Emergency telephone

Emergency Phone #	US & Canada: 1-800-535-5053	INFOTRAC
	International 1-352-323-3500	INFOTRAC

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute Toxicity - Oral	Category 4
Acute Toxicity - Dermal	Category 4
Skin Corrosion / Irritation	Category 2
Eye Damage / Irritation	Category 1

Skin Sensitizer	Category 1
Germ Cell Mutagenicity	Category 2
Reproductive Toxicity	Category 2
Specific Target Organs/Systemic Toxicity Following Single Exposure	Category 1
Specific Target Organs/Systemic Toxicity Following Repeated Exposure	Category 1
Hazardous to the Aquatic Environment (Acute)	Category 2
Hazardous to the Aquatic Environment (Chronic)	Category 2

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal Word

Danger

Hazard statements

Harmful if swallowed.
Harmful in contact with skin.
Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye damage.
Suspected of causing genetic defects.
Suspected of damaging fertility or the unborn child.
Causes damage to organs.
Causes damage to organs through prolonged or repeated exposure.
Toxic to aquatic life.

Precautionary statements

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe fumes, mist, vapors, or spray.

DO NOT BREATH FUMES, MIST, VAPORS, OR SPRAY.
Avoid breathing fumes, mist, vapors, or spray.
Wash arms, hands and face thoroughly after handling.
Do not eat, drink or smoke when using this product.
Contaminated work clothing must not be allowed out of the workplace.
Avoid release to the environment.
Wear protective gloves and eye protection.
IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell.
IF ON SKIN: Wash with plenty of soap and water.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF exposed: Call a POISON CENTER or physician.
IF exposed or concerned: Get medical attention.
Immediately call a POISON CENTER or physician.
Call a POISON CENTER or physician if you feel unwell.
Get medical attention if you feel unwell.
Specific treatment (Wash areas of contact with water).
Rinse mouth.
If skin irritation occurs: Get medical attention.
Take off contaminated clothing and wash it before reuse.
Wash contaminated clothing before reuse.
Store locked up.
Dispose of contents in accordance with local, state, federal and international regulations.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

WHMIS classification is not included based on the recommended option (Option 4) found in the Canada Gazette Part II, Vol. 149, No.3, page 458

SECTION 3: Composition/information on ingredients

3.1 Components

Chemical name	Common name and synonyms	CAS number	Concentration
Water	No information available.	7732-18-5	≤82%
Copper Sulfate	Copper Sulfate Pentahydrate	7758-99-8	≥18%

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

If inhaled Not expected to require first aid. If necessary, remove to fresh air.

In case of skin contact IF ON SKIN: Wash with plenty of soap and water. May cause irritation, redness, and pain.

In case of eye contact IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. May cause irritation, redness, pain, and tearing.

If swallowed IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Dilute immediately with water or milk. Induce vomiting. Call a physician.

4.2 Most important symptoms and effects, both acute and delayed

Avoid ingestion or contact with skin, eyes, or clothing. May cause irritation upon contact. If ingested, dilute with water or milk and induce vomiting. Call a physician. Wash areas of contact with plenty of water for 15 minutes. For eyes, get medical attention. EYE CONTACT: May cause irritation, redness, pain, and tearing. SKIN CONTACT: May cause irritation, redness, and pain.

4.3 Indication of any immediate medical attention and special treatment needed

Immediately call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water).

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media Use any means suitable for extinguishing surrounding fire.

Unsuitable extinguishing media No information available.

5.2 Specific hazards arising from the substance or mixture

Not considered to be a fire or explosion hazard.

5.3 Special protective equipment and precautions for firefighters

Use protective clothing and NIOSH-approved breathing equipment appropriate for the surrounding fire.

5.4 Further information

Flash Point No information available.

Autoignition Temperature No information available.

Explosion limits

Upper No data available.

Lower No data available.

Sensitivity to Mechanical Impact No information available.

Sensitivity to Static Discharge No information available.

NFPA

Health	Flammability	Instability	Physical hazards
2	0	0	N/A

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear protective gloves and eye protection. Chemical resistant gloves. Safety glasses or goggles.

6.2 Environmental precautions

No information available.

6.3 Methods and materials for containment and cleaning up

Absorb with suitable inert material (vermiculite, dry sand, etc) and place in a chemical waste container for proper disposal. Do not flush to sewer. Dispose of in accordance with local regulations.

6.4 Reference to other sections

No information listed.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin.

Hygiene measures

No information available.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Store locked up. Protect from freezing and physical damage.

Incompatibilities

Hydroxylamine, alkalis, phosphates, hydrazine, sulfuric acid, finely powdered metals, active metals (Potassium, Sodium, Magnesium and Zinc).

SECTION 8: Exposure controls/personal protection

8.1 Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

No information listed.

US. ACGIH Threshold Limit Values

Component	Type	Value
Copper Sulfate Pentahydrate (7758-99-8)	TLV-TWA	1 mg/m ³ TWA (dust and mist, as Cu)

US. NIOSH: Pocket Guide to Chemical Hazards

No information listed.

Biological occupational exposure limits

No information listed.

8.2 Exposure controls

Appropriate engineering controls

No specific controls are needed. Normal room ventilation is adequate.

Personal protective equipment

Eye/face protection

Wear protective gloves and eye protection. (Safety glasses or goggles.)

Skin protection

Wear protective gloves and eye protection.

Body Protection

Wear protective gloves and eye protection.

Respiratory protection

Normal room ventilation is adequate.

Control of environmental exposure

No information available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State	Blue liquid
Appearance	Liquid
Odor	Data not available.
Odor Threshold	Data not available.
pH	App.4 (0.2 Molar)
Melting Point/Range	Approximately 100°C - Approximately 100°C
Boiling Point/Range	Approximately 0°C
Evaporation Rate	Data not available.
Flammability (solid)	Data not available.
Flammability or explosive limit	Data not available.
Upper	Data not available.
Lower	Data not available.
Vapor Pressure	Data not available.
Vapor Density	Data not available.
Density	1.13

Solubility	Miscible
Partition coefficient; n-octanol/water	Data not available.
Autoignition Temp	Data not available.
Decomposition Temp	Data not available.
Viscosity	Data not available.
Molecular Formula	Data not available.
Molecular Weight	Data not available.
VOC Content(%)	Data not available.
Oxidizing properties	Data not available.

9.2 Other safety information

No information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

Stable under normal conditions of use and storage.

10.2 Chemical stability

Stable under normal conditions of use and storage.

10.3 Possibility of hazardous reactions

Data not available.

10.4 Conditions to avoid

See Section 10.5

10.5 Incompatible materials

Hydroxylamine, alkalis, phosphates, hydrazine, sulfuric acid, finely powdered metals, active

10.6 Hazardous decomposition products

Will not occur.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Product Information, Component Information

Acute toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Copper Sulfate	Rat: 300 mg/kg	Not listed	Not listed

Skin corrosion/irritation

Causes skin irritation. Wash arms, hands and face thoroughly after handling. Wear protective gloves and eye protection. IF ON SKIN: Wash with plenty of soap and water. Specific treatment (Wash areas of contact with water). If skin irritation occurs: Get medical attention. Take off contaminated clothing and wash it before reuse.

Serious eye damage/eye irritation

Causes serious eye damage. Wear protective gloves and eye protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.

Respiratory or skin sensitization

May cause an allergic skin reaction. Avoid breathing fumes, mist, vapors, or spray. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves and eye protection. IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical attention. Specific treatment (Wash areas of contact with water). Wash contaminated clothing before reuse. Dispose of contents in accordance with local, state, federal and international regulations.

Germ cell mutagenicity

Suspected of causing genetic defects. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves and eye protection. IF exposed or concerned: Get medical attention. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

Carcinogenicity

Not applicable.

Specific target organ toxicity - single exposure

Causes damage to organs. Do not breathe fumes, mist, vapors, or spray. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. IF exposed: Call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water). Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

Specific target organ toxicity - repeated exposure

Causes damage to organs through prolonged or repeated exposure. Do not breathe fumes, mist, vapors, or spray. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. Get medical attention if you feel unwell. Dispose of contents in accordance with local, state, federal and international regulations.

Reproductive toxicity

Suspected of damaging fertility or the unborn child. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves and eye protection. IF exposed or concerned: Get medical attention. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

Chronic effects

No information available.

11.2 Additional Information

No information available.

SECTION 12: Ecological information

12.1 Toxicity

Toxic to aquatic life. Avoid release to the environment. Dispose of contents in accordance with local, state, federal and international regulations. Toxic to aquatic life. Avoid release to the environment. Dispose of contents in accordance with local, state, federal and international regulations.

12.2 Persistence and degradability

Data not available.

12.3 Bio accumulative potential

Data not available.

12.4 Mobility in soil

Data not available.

12.5 Results of PBT and vPvB assessment

Data not available.

12.6 Endocrine disrupting properties

Data not available.

12.7 Other adverse effects

Data not available.

SECTION 13: Disposal considerations

13.1 Waste Disposal Methods

Data not available.

SECTION 14: Transport information

DOT (US) Not regulated according to DOT Regulations.

IMDG Not listed.

IATA Not regulated according to IATA Regulations.

SECTION 15: Regulatory information

US federal regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Water (CAS # 7732-18-5): Present

Copper Sulfate Pentahydrate (CAS # 7758-99-8): Present

CERCLA Hazardous Substance List (40 CFR 302.4)

No information available.

SARA 304 Emergency release notification

No information available.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous

Copper Sulfate Pentahydrate (CAS # 7758-99-8): 10 lb final RQ; 4.54 kg final RQ

SARA 313 (TRI reporting)

Copper Sulfate Pentahydrate (CAS # 7758-99-8): 1.0 % de minimis concentration (This category does not include CAS numbers 147-14-8, 1328-53-6, or 14302-13-7, or copper phthalocyanine compounds that are substituted with only hydrogen and/or chlorine and/or bromine., listed under Chemical Category N100)

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

No information available.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

No information available.

Safe Drinking Water Act

No information available.

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

No information available.

US state regulations

US. Massachusetts RTK - Substance List

Copper Sulfate Pentahydrate (CAS # 7758-99-8): Present

US. New Jersey Worker and Community Right-to-Know Act

Copper Sulfate Pentahydrate (CAS # 7758-99-8): sn 0549
Copper Sulfate Pentahydrate (CAS # 7758-99-8): sn 2215
Copper Sulfate Pentahydrate (CAS # 7758-99-8): SN 2215 500 lb TPQ (except C.I.
Pigment Blue 15, C.I. Pigment Green 7, and C.I. Pigment Green
36, Category Code N100)

US. Pennsylvania Worker and Community Right-to-Know Law

Water (CAS # 7732-18-5): Present
Copper Sulfate Pentahydrate (CAS # 7758-99-8): Environmental hazard
Copper Sulfate Pentahydrate (CAS # 7758-99-8): Present

California Proposition 65

Not listed.

SECTION 16: Other information

Date of Issue: 12/15/2025

SECTION 17: Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.